

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of remotely evaluating a physical object, the method comprising:

[[[-]]] reading instructions of a macro at a local computer,

[[[-]]] wherein said macro is configured for use with a first measurement equipment, said first measurement equipment being capable of performing measurements of said physical object, and

[[[-]]] wherein said macro comprises instructions for said first measurement equipment to perform an evaluation of said physical object;

[[[-]]] receiving at the local computer a numerical representation of said physical object, wherein said numerical representation has been previously generated by measurement of said physical object using a second measurement equipment and prior to the numerical representation being sent to the local computer, and wherein the local computer is configured such that it is capable of evaluating said physical object by evaluating said numerical representation in lieu of evaluating said physical object;

[[[-]]] generating an evaluation of said physical object at said local computer by performing the instructions of said macro upon the numerical representation of the surface of said physical object; and

[[[-]]] outputting through the local computer said evaluation.

2. (Previously Presented) Method according to claim 1 wherein said numerical representation of the surface is obtained by scanning part or all of the physical object using an object scanner.

3. (Previously Presented) Method according to claim 1, wherein said numerical representation of the surface is any of point cloud data, triangulated mesh data, rendered surface data, and polyline data.

4. (Currently amended) Method according to claim 1, wherein said first measurement equipment is a Coordinate Measuring Machine (CMM).

5. (Previously Presented) Method according to claim 1, wherein said macro comprises Dimensional Measuring Interface Standard (DMIS) commands.

6. (Previously Presented) Method according to claim 1, wherein said macro comprises CMM commands.

7. (Previously Presented) Method according to claim 1, further comprising communicating said evaluation by part of a DMIS-measurement program or by using DMIS commands format.

8. (Previously Presented) Method according to claim 1, further comprising communicating the said evaluation in the format of CMM measurement results.

9. (Previously Presented) Method according to claim 1, wherein the instructions of said macro that are performed relate to measurement of data from the numerical representation of the surface.

10. (Previously Presented) Method according to claim 1, further comprising performing translations through the surface of the object.

11. (Currently amended) Method according to claim 1, wherein the macro comprises instructions for performing a measurement comprising:

(a) determining elements of data that numerically represent the object, and that correspond to the position on the physical object to be measured, without increasing the resolution by calculating the co-ordinates of any additional points;

(b) calculating additional points by interpolation of the determined elements, wherein the additional points increase the resolution in an area of a position to be measured; and

(c) calculating from the area of increased resolution a measurement of the object.

12. (Previously Presented) Method according to claim 1, wherein one or more instructions of said macro have been created by using said numerical representation of the physical object.

13. (Original) Method according to claim 12 wherein said instructions are recorded to the macro by way of a DMIS-measurement program or using the DMIS commands format.

14. (Previously Presented) Method according to claim 12, wherein said instructions are part of a measurement sequence generated by recording commands of a Coordinate Measuring Machine measurement program.

15. (Previously Presented) Method according to claim 12, wherein said instructions are part of a measurement sequence in a Coordinate Measuring Machine measurement program.

16. (Previously Presented) Method according to claim 1, wherein said evaluation comprises the execution of steps on a computer in an automatic way without interaction with the user of said computer during the execution of said steps.

17. (Currently amended) A method of remotely evaluating a physical object, the method comprising:

a local computer receiving a cloud of points from a remote location, wherein the cloud of points has been generated by a previous measurement of said physical object at the remote location and virtually represents said physical object;

performing an evaluation of the cloud of points at the local computer;

the local computer calculating one or more values based on the evaluation, wherein the one or more values approximate the value or values that would result from the measurement of said physical object by a measuring device; and

the local computer outputting the evaluation.

18. (Currently amended) A method of remotely probing a physical object, the method comprising:

a local computer receiving a cloud of points from a remote location, wherein the cloud of points has been generated by previous measurement of said physical object at the remote location and virtually represents said physical object;

the local computer performing an evaluation of the cloud of points;

the local computer calculating or selecting a point that approximates a point that would result from the probing of a coordinate measuring machine (CMM) on said physical object; and

the local computer outputting the evaluation.

19. (Previously Presented) A computer readable medium comprising instructions which, when executed, cause the computer to perform the method according to claim 1.

20. (Previously Presented) A computer readable medium according to claim 19, further comprising instructions which, when executed cause the computer to receive the numerical representation of the physical object from a remote computer.

21. (Previously Presented) A computer readable medium according to claim 20 wherein the numerical representation is received from the remote computer across any of the Internet, email, wireless link, public switched telephone network, ISDN, satellite link, or by physical transport of a computer readable storage medium holding said numerical representation.

22. (Previously Presented) A computer readable medium according to claim 21 wherein said computer readable storage medium comprises any of optical disk, magnetic disk, optic-magnetic disk, magnetic tape.

23. (Previously Presented) A computer readable medium according to claim 19, further comprising instructions, which, when executed cause the computer to display a user interface on a web browser of a remote computer connected to the Internet, said interface allowing a user to send the numerical representation of the physical object over the Internet to a computer configured to perform said method.

24. (Previously Presented) A computer readable medium according to claim 19, further comprising instructions, which, when executed, cause the computer to display a user interface on a web browser of a remote computer connected to the Internet, said interface allowing a user to send said macro over the Internet to a computer configured to perform said method.

25. (Previously Presented) A computer readable medium according to claim 19, further comprising instructions, which, when executed, cause the computer to display a

user interface on a web browser of a remote computer connected to the Internet, said interface allowing a user to send the title of said macro or an indication of said macro over the Internet to a computer configured to perform said method.

26. (Previously Presented) A computer readable medium according to claim 19, further comprising instructions, which, when executed, cause the computer to display a user interface on a web browser of a remote computer connected to the Internet, said interface allowing a user to receive an evaluation report of a physical object generated by said method.

27. (Previously Presented) A computer readable medium according to claim 19, further comprising instructions, which, when executed, cause the computer to display a pay-per-use interface on a web browser of a remote computer connected to the Internet, said pay-per-use interface configured to perform at least one of requesting a username and password to the remote computer user so as to enable a user to access an account for using the method, requesting billing information of the remote computer user, indicating a billing amount to the remote computer user, the billing amount relating to the number of evaluations performed, and providing a username and password to the remote computer user so as to enable a user to access an account for using the method.

28. – 30. (Canceled)

31. (Previously Presented) The method of Claim 1, wherein the output of the evaluation is a report.

32. (Previously Presented) The method of Claim 17, wherein the output of the evaluation is a report.

33. (Previously Presented) The method of Claim 18, wherein the output of the evaluation is a report.

34. (Previously Presented) The method of Claim 1, wherein the evaluation comprises obtaining information regarding the shape of a portion or a feature of a physical object.

35. (Previously Presented) The method of Claim 34, wherein the evaluation provides an assessment of the trueness of a feature of the physical object or a dimension of a physical object.

36. (Previously Presented) The method of Claim 1, wherein the evaluation comprises a measurement.

37. (Currently amended) A method of remotely evaluating a physical object, the method comprising:

[[[-]]] reading instructions of a macro at a local computer, wherein said macro is configured for use with a first measurement equipment, and wherein said macro comprises instructions for said first measurement equipment to perform an evaluation of said physical object;

[[[-]]] receiving a numerical representation of said physical object from a remote computer, wherein said numerical representation was generated with a second measurement equipment;

[[[-]]] generating an evaluation of said physical object with said first measurement equipment by performing the instructions of said macro upon the stored numerical representation; and

[[[-]]] outputting said evaluation.

38. (Currently amended) A method of remotely evaluating a physical object, the method comprising:

[[[-]]] reading instructions of a macro,

[[[-]]] said macro configured for use with first measurement equipment, said first measurement equipment being capable of performing measurements of said physical object,

[[[-]]] said macro comprising instructions for said first measurement equipment to perform an evaluation of said physical object;

[[[-]]] receiving a numerical representation of said physical object from a remote computer, wherein said numerical representation was generated by measurement of said physical object using a second measurement equipment and prior to the numerical representation being sent from the remote computer to a local computer, and wherein the numerical representation is configured such that said physical object may be evaluated by evaluating said numerical representation;

[[-]] generating an evaluation of said physical object by performing the instructions of said macro upon the numerical representation of said physical object, wherein the generating the evaluation comprises performing a single calculation on at least two points of the numerical representation; and

[[-]] outputting said evaluation.

39. (New) The method according to claim 1, wherein the first measurement equipment and the second measurement equipment are different from one another and remote to the local computer.

40. (New) The method according to claim 1, wherein the first measurement equipment and the second measurement equipment are the same measurement equipment that is remote to the local computer.

41. (New) The method according to claim 37, wherein the first measurement equipment and the second measurement equipment are different from one another and remote to the local computer.

42. (New) The method according to claim 37, wherein the first measurement equipment and the second measurement equipment are the same measurement equipment that is remote to the local computer.

43. (New) The method according to claim 38, wherein the first measurement equipment and the second measurement equipment are different from one another.

44. (New) The method according to claim 38, wherein the first measurement equipment and the second measurement equipment are the same measurement equipment.